

Roadside Right of Way Grasshopper Spray Program Considerations

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Treatment of grasshoppers when they are young, concentrated in hatching areas, and highly susceptible to lower rates of insecticide is a long standing management strategy.

1. Roadside right of ways are sometimes major hatching areas for grasshoppers. Infestations are often variable and not all roadsides are likely to be infested. Roadsides that were weedy or had enough green vegetation to attract adult grasshoppers during the previous year's egg laying period are more likely to be infested with eggs. Roadsides adjacent to late season crops that are themselves attractive egg laying sites are also more heavily infested.

2. Numerous other areas on the farm can also be hatching areas including:

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| -Fencerows | -Last years weedy fields |
| -Shelterbelts | -Fields that were planted to a late season crop last year |
| -Grass waterways | especially when summer fallowed this year |
| -Rock piles | Sunflower |
| -Weedy waste areas | Safflower |
| -Some CRP | Flax |
| -Alfalfa and haylands | Soybean |
| -Last years weedy fallow | |

3. Treatment timing can be difficult. Egg hatch normally occurs over a 4 - 6 week period and the developing grasshoppers gradually move out from their hatching areas. Spraying too early can miss later hatching grasshoppers while spraying too late allows early hatching hoppers to move into crops and escape treatment and perhaps cause serious crop damage.

What are Reasonable Expectations

1. Roadside programs conducted when roadsides are generally infested and a major contributor as hatching areas can reduce but not eliminate the threat of grasshopper damage.
2. Farmers may be disappointed if they do not make efforts to identify, monitor, and manage other hatching areas.
3. Roadside programs may reduce, but are unlikely to eliminate the need for additional crop protection measures in years favorable for grasshoppers.
4. Roadside programs may contribute to but are unlikely to be responsible for preventing grasshoppers from laying eggs and creating the potential for problems next year.

Roadside Programs should:

1. Include scouting to determine if a sufficient percentage of roadsides are infested to warrant a roadside program. Roadside infestations are frequently spotty and other areas frequently contribute to the grasshopper problem.
2. Treatments should generally be applied prior to significant movement of grasshoppers into fields. Movement normally begins as hoppers approach the 3rd instar. Treatments after adults appear are not effective.
3. Farmers should be encouraged to scout and if necessary treat other hatching areas with threatening populations.